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# Air Force Issues Book

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**AIR FORCE**  
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## FOREWORD

*The Air Force Issues Book* is designed to provide Air Force commanders and representatives with information on a wide range of Air Force programs and concerns. This updated version supersedes the 1989 edition and will help you stay abreast of the major issues facing the Air Force today. It complements *The United States Air Force Report to the 101st Congress of the United States of America*, which was released earlier this year. Copies of both of these documents are available at your public affairs office and are cleared for open release.

I hope you find this edition of *The Issues Book* informative and useful in telling the Air Force story. Please direct any questions or suggestions you may have to the Air Force Issues Team at (202) 695-0137 or Autovon 225-0137.

Sincerely



BRETT M. DULA  
Brigadier General, USAF  
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# INTRODUCTION

# INTRODUCTION

As the 1990 *Air Force Issues Book* goes to press, profound changes continue to take place throughout the world. Less than a year ago, Americans watched the televised dismantling of the Berlin wall and the subsequent emasculation of the Warsaw Pact. Just recently, NATO leaders promised fundamental changes in the alliance's military and political policies. Yet these changes still do not promise tranquility for the coming decade. Indeed, increased political instability, economic dislocation, and shifting military power are all potential threats to American interests worldwide.

Just as we cannot ignore the worldwide political and economic changes of the past year, we must not abandon our fundamental national security objective -- to preserve the United States as a free and independent nation, with its people, values, and institutions secure. During the coming months and years we must find ways to balance the optimism inspired by global events with the realism thrust upon us by international instability. In June 1990, Secretary of the Air Force Donald B. Rice issued a white paper titled "The Air Force and U.S. National Security: Global Reach -- Global Power." This study shows how the strengths of the Air Force rest upon its inherent characteristics of speed, range, flexibility, precision, and lethality -- characteristics which are directly relevant to the national interest in the future. The following objectives provide a planning framework to support our Nation's defense strategy:

- Sustain deterrence -- Nuclear Forces
- Provide versatile combat force -- Theater Operations and Power Projection
- Supply rapid global mobility -- Airlift and Tankers
- Control the high ground -- Space and C<sup>3</sup>I Systems
- Build US influence -- Strengthening Security Partners and Relationships

In keeping with the spirit of "Global Reach -- Global Power," the 1990 *Air Force Issues Book* provides commanders and others with information on Air Force programs of specific concern to Congress. The *Issues Book* is based on Air Force requirements, conveyed to Congress via the FY 91 President's Budget request (including modifications such as Secretary Cheney's Major Aircraft Review). We will focus on evolving issues in the quality force, readiness and sustainability, management, and force modernization areas.

## QUALITY FORCE

Force size is based on the minimum acceptable forces needed to carry out the national military strategy. In **Personnel** we face the challenge of cutting end strength while retaining well trained, highly motivated people. A smaller force makes the commitment and readiness of the Total Force even more critical to our future success. Because fiscal considerations have forced us to make concessions in the size and structure of our forces, we must ensure that we accomplish our reductions and realignments programmatically. As we reduce Active end strength, we must also realign our overall force structure. **Basing** presents the Air Force plans for modifying or eliminating some missions, reducing the tactical fighter force structure, and closing or consolidating some bases.

## READINESS AND SUSTAINABILITY

This section highlights issues which challenge the Air Force's capability to provide sufficient spares, supplies, munitions, and fuel to ensure warfighting success. As we move into the 1990s, we will continue to face the challenge of balancing our staying power with our overall modernization and readiness goals.

Readiness is the totality of proficiency and sufficiency in forces, units, air bases, weapon systems, and equipment. To maintain proficiency, ready forces must train under realistic conditions. To maintain sufficiency, ready forces must have adequate equipment and supplies available at a moment's notice. The edge gained through realistic training, combined with sufficient on-hand supplies, enables these forces to deploy rapidly, seize the initiative, engage the enemy effectively on the first day, and control the battle to a favorable result. Major readiness concerns focus on our ability to maintain and operate our basing structure and to keep pace with rising costs and decreasing budgets.

Sustainability, the staying power to fight during and beyond an initial period of combat, depends on the nation's ability to provide adequate spares, supplies, munitions, and fuel to replace those consumed in battle. Sustainability can be achieved when stocks, support infrastructure, war reserve materiel, and the required industrial base are in place during peacetime. The Air Force continues to work with all DOD components and national agencies to improve industrial base capabilities, reduce the critical time it takes to achieve national emergency production rates, and provide the war materiel our fighting forces will require in sustained combat.

## MANAGEMENT REFORMS

Current issues in our acquisition and management policies are discussed in **Management Reforms**. Of particular note is Air Force support for the Defense Management Review (DMR) initiated by Secretary Cheney. The efficiencies realized through DMR will reap benefits and savings for years to come.

## FORCE MODERNIZATION

Force modernization efforts in nuclear, theater, airlift, and space forces must be pursued within the scope of ongoing **Arms Control** negotiations. The Strategic Arms Reductions Talks (START) Treaty will set the limits on the nuclear forces of both the United States and Soviet Union and form the framework within which our forces contribute to global security and stability. The negotiations on Conventional Armed Forces in Europe (CFE) are focused on achieving a secure and stable balance of forces at lower levels, eliminating force disparities, and denying either side the capability for launching a surprise attack or large-scale offensive operation. The United States is committed to the goal of a Europe free from the threat of domination by force.

The programs key to maintaining an effective deterrent are described in **Nuclear Forces**. Strategic forces provide nuclear deterrence, worldwide conventional power projection, and strategic defense across all levels of conflict. Despite changes in Eastern Europe, the Soviet Union remains the only country both for today and in the foreseeable future that can threaten the existence of the United States. The Soviet's ability to destroy our society resides in their modern, effective nuclear force structure. They continue to pursue strategic modernization programs while posturing their forces for compliance with likely START Treaty restrictions. This threat is best countered by a strategy which discourages the use of nuclear weapons -- deterrence. Our strategic modernization programs, primarily the B-2, Peacekeeper Rail Garrison, and Small ICBM, are essential to retain the credibility of our deterrent force.

As an instrument of national resolve, conventional airpower offers exceptional flexibility across the spectrum of conflict; therefore, we must maintain a highly capable, modern, and ready force. The Air Force generally offers the fastest, longest range, leading edge force available to the President, a force that is able to respond to a variety of global contingencies, intervene against a well-equipped foe, hit hard, and either terminate quickly or escalate gradually. But, we must continue to refine these capabilities despite a diminishing defense budget and a reduced force structure. In **Theater Forces and Power Projection**, we show how we plan to partially offset reduced force structure by modifying our current inventory of tactical aircraft and weapons to increase capability, maintainability, and service life. We are also developing future weapon systems with a close eye on procurement, operations, and support costs to provide an effective yet affordable force. Through modification programs and cost control measures, we are leveraging our investments, enabling us to field a ready and capable tactical force.

Airlift forces can project power quickly and decisively throughout the world. Their ability to carry troops and equipment, air refuel, and airland or airdrop their cargo reduces dependence on forward basing, while retaining the ability to meet almost any military or civil requirement. Clearly, whether employed in support of military forces or natural disaster relief, airlift is a national asset. With the

increasingly unpredictable nature of world events, Special Operations Forces (SOF), with their ability to operate across the entire spectrum of conventional warfare, will become even more critical to the achievement of national objectives. Operating in a covert or overt environment, these specially trained forces provide pinpoint accuracy and specialized support wherever needed. Another area of increasing Air Force involvement is support of our nations's drug interdiction program. The **Airlift, Special Operations, and Drug Interdiction** section discusses issues in each of these areas.

Strategic, tactical, and airlift forces all rely on the force multiplying capabilities inherent in space-based systems: global coverage, low vulnerability, and autonomous operations. Smaller force levels with less access to forward bases will increase our reliance on space-based communications and surveillance assets. **Space Assets** explores the issues pertinent to the "high ground of the future," and how the Air Force continues to integrate spacepower into its basic roles and missions. Space-based communications assets provide global, secure, and reliable communications along with precise navigation data. Surveillance systems can provide unprecedented warning and threat assessments to battle commanders, regardless of the conflict location. They also enable us to monitor compliance with arms control agreements. The force multiplying effects of space-based systems are essential for the modern-day military force.

The FY 91 budget process continues as this document is produced. Many of the major budget issues remain unresolved and under review. The Air Force will grow smaller and smarter, not simply because of budget constraints, but because of evolving US national security needs.

We must sustain deterrence, provide versatile combat forces, supply rapid global mobility, and control the high ground, while building US influence throughout the world. The Air Force will continue to meet these objectives by building forces that complement each other, as well as those of the Army, Navy, and Marines.

# QUALITY FORCE



# QUALITY FORCE

## PERSONNEL

### ISSUE: Military Pay

During this period of force reductions and shrinking budgets, providing a competitive compensation package remains a key Air Force goal. Specifically, achieving military pay levels comparable with private-sector wages has been a goal of the all-volunteer force since the 1970s.

Military pay raises from October 1982 through January 1989 were capped at a level below private-sector wage growth and, even with the January 1990 3.6-percent pay increase, the comparability gap widened to 11.4 percent. During this period, overall retention and force quality have remained high; however, the widening gap poses special concerns as we transition to a smaller, more retention-sensitive force.

Low inflation has been a key factor in maintaining a stable level of purchasing power throughout the 1980s. Even with successive pay caps, the purchasing power of military pay remained relatively constant in relation to inflation until recently. However, the last three pay raises have lagged inflation by an average of one percent per year. Therefore, we must continue to oppose the continued erosion of the relative value of military pay and allowances.

The FY 91 President's Budget requests a 3.5-percent basic pay raise to be effective on January 1, 1991. This request matches the conservative inflation estimates made by the Office of Management and Budget. More recent estimates project actual inflation will be approximately 4.4 percent, which would result in the comparability gap widening to 12.9 percent. Because pay increases are outlay rich, it is unlikely that the Congress would approve a larger pay raise.

### ISSUE: Pilot Retention

Last year Congress substantially increased the career incentive pay for aviators and extended the authority to pay targeted aviator retention bonuses. Called the Aviation Career Improvement Act of 1989, this and other aviator management initiatives were enacted to counteract aviator retention problems in the military services. While the Air Force has not had enough time to determine fully the success of these initiatives, the pilot cumulative continuation retention rate appears to have stabilized at an unacceptably low rate -- the 6- to 14-year continuation rate is 30 percent -- thus pilot retention remains a high priority issue.

We have done extensive research in an effort to quantify the effectiveness of the incentives. We used econometric and other modeling techniques to estimate the effects of the aviator continuation pay (ACP) and aviation career incentive pay (ACIP). We project an inventory gain of almost 1,800 pilots (over the inventory expected without a bonus or flight pay increase) by FY 94. About 4,100 pilots have accepted the bonus thus far, representing an overall "take rate" of about 60 percent. However, only about 1,400 pilots in their seventh and eighth years of service (about 40 percent) have accepted thus far, and in FY 90 only 29 percent of the seventh and eighth year pilots have accepted. We have seen a decline in ACP acceptance which seems to parallel the general turmoil associated with lower budgets, the permanent change-of-station freeze, force reductions, and continued growth in the airline industry. The bonus program effectively guarantees retention through the fourteenth year of service for those accepting. However, the low acceptance rates we are seeing virtually guarantee we will continue to have a pilot shortage in spite of requirements reductions.

Aviator management initiatives are absolutely essential. The pilot retention problem remains a national problem requiring the attention of Congress, airline industry representatives, the military services, and the Department of Transportation. The Air Force will continue to be responsive to new ideas in working the pilot issue from a national perspective, especially since the airline industry is likely to continue to

demand huge numbers of experienced aviators for the foreseeable future.

#### **ISSUE: Civilian Health and Medical Program of the Uniformed Services (CHAMPUS)**

CHAMPUS is a cost-sharing, health benefits payment program for military dependents and retirees. Covered benefits under this plan roughly parallel those available under other public and private health care plans. Because of increased patient visits and the rapidly rising costs of health care nationwide, CHAMPUS funding experienced a severe shortfall again this year. Fortunately, Congress approved a reprogramming of funds which will enable the Air Force to meet most of its expected obligations through the end of FY 90.

However, shortfalls in CHAMPUS funding are a recurring problem and as such have received increasingly rigorous Congressional scrutiny. In response, the DOD implemented three cost containment initiatives. Project Restore invests in military treatment facilities to enhance their ability to take back a portion of the CHAMPUS workload. Generally it is more cost efficient to provide health care services in military facilities than in private ones. The CHAMPUS payment reforms attempt to control cost by limiting the unit prices paid for other provider-billed charges. Finally, managed care programs integrate investment strategies and payment reforms into alternate delivery programs. Examples of this are the CHAMPUS Reform Initiative experiments in California and Hawaii and the Catchment Area

Management program in which local commanders negotiate with civilian providers only for services beyond the capabilities of the military treatment facility.

### **ISSUE: Officer Force Management**

To facilitate further reductions in the officer force, the Air Force seeks Congressional passage of two Defense Officer Personnel Management Act (DOPMA) relief proposals.

The DOPMA Relief package was first introduced into Congress in July 1989 with the intent that it would become part of the FY 90/91 Authorization Act. Instead the FY 90 Act required the Secretary of Defense to report to Congress on DOD plans for manpower reductions. In response, a report to Congress, "Management of Strength Reductions," outlined the Services' strength reductions resulting from the FY 90 Appropriations Act and the Omnibus Budget Reconciliation Act of 1989. A follow-on legislative package, "Officer Management Legislation -- Why Needed," outlined the Services' immediate problems, particularly the Army's, and showed how the DOPMA relief proposals would solve them. The Air Force is seeking incorporation of this legislation in the FY 91 Authorization Act.

Currently, the Air Force plans to use only the two Voluntary Retirement Waiver provisions of the bill. First, the Air Force would reduce the time in grade requirement for lieutenant colonels and colonels to

retire in grade from 3 years time in grade to 2 years. Second, we would allow commissioned officers with prior enlisted service to retire as officers with 8 years commissioned service instead of 10 years as is now required. The Air Force does not intend to use other provisions which include: expanding Selective Early Retirement Board eligibility; curtailing officers selected for continuation on active duty; conducting a reduction-in-force (RIF) of regular officers; and allowing regular and reserve officers to be offered separation pay for voluntary separation solicited by the Service.

### **ISSUE: Enlisted Force Reductions**

Because of the force structure drawdown, the Air Force has been forced to adopt a strategy which spreads enlisted losses across all segments of the force. These programs include reducing the number of non-prior service accessions; establishing more stringent criteria for first-term reenlistments; and lowering the high-year-of-tenure points for Sergeants, Technical Sergeants, Master Sergeants, and Senior Master Sergeants.

The Air Force experienced excellent retention during the 1980s. This, coupled with the recruitment of large numbers of high quality people to meet rapidly increasing end strengths, translated into the most experienced enlisted force in our history. End strength reductions will require all Services to take measures to reduce the active duty force in a relatively short period of time. We will continue to rely on voluntary

reduction measures to the greatest extent possible, i.e., reduced recruiting and eased separation and retirement guidelines. However, some involuntary actions could be required, depending on the severity of the end strength reduction. It is important that we maintain job opportunity and promotion rates throughout this transition period. Consequently, reduction methods must be balanced across the full spectrum of the force.

### **ISSUE: Transition Management**

The pending large-scale force reductions have prompted Congressional as well as Service interest in and concern for those Service members involuntarily separated. These concerns have spawned the introduction of a number of transition management legislative proposals, all designed to provide fair and equitable compensation for services rendered and to help with the transition into civilian life. The current separation pay law, which has not been amended since 1980, covers only officers; enlisted members are not eligible for separation pay. Consequently, DOD is sponsoring the "Enlisted Military Personnel Separation Equity Act," a legislative proposal to expand the current law to include enlisted members and revise the existing program for officers.

The DOD-sponsored legislation would apply to officers and enlisted members with more than 7 years of active duty service. However, a transition clause is included that permits anyone (including enlisted members) on active duty at the time of enactment to be eligible for

payment if they have a minimum of 5 years of active duty service. Although the current payment formula would stay in effect, the \$30,000 payment cap would be lifted, providing greater equity by letting the formula recognize the full value of rank and longevity. Finally, the bill retains the discretionary authority for the Service Secretaries to pay half or none of the pay based on separation circumstances, which would be standardized by directives.

Although the Air Force is pleased that transition programs are receiving Congressional attention, we support the DOD legislative proposal. The bill will provide uncapped separation pay to all military members and an equitable transition for officers. This is the best way to lessen the pain to those men and women involuntarily separated who, for the most part, entered the All-Volunteer force with the intentions of making the military a career.

### **ISSUE: Permanent Change-of-Station (PCS) Budget**

The Air Force has had difficulty operating within its PCS budget since FY 86. Over the years, we implemented numerous workarounds to meet funding shortfalls from previous years. For example, we implemented the Date Eligible for Return from Overseas (DEROS) Forecast System to encourage members to remain overseas. We lowered continental United States (CONUS) and overseas manning levels and solicited voluntary overseas extensions. Additionally, we increased the number of technical training

graduates and accessions going directly to overseas locations. Even with fewer moves, costs continue to increase dramatically, driven by inflation and increased entitlements.

Congressional adjustments to the Military Personnel account for FY 90 required the Air Force to take many hardship actions to realize savings. We involuntarily extended 13,500 members serving 18-month overseas tours. More than 7,000 assignments were cancelled or delayed, and 6,400 assignment allocations were required but never made.

The PCS funding level in the FY 91 President's Budget request is necessary to allow for continuity in Air Force restructuring efforts that will occur in the early to middle 1990s. Reducing PCS funds will force us to continue sending technical training graduates directly overseas instead of transferring experienced personnel from CONUS bases. It would exacerbate the disproportionate manning between different installations and operational units. PCS funding reductions must be accompanied by programmatic reductions, but programmatic reductions require extra PCS funds to move people to the new missions or return them from overseas. Simply lowering overseas manning floors to the levels required to meet budget deficits is unacceptable, because it adversely affects readiness in front-line combat units.

#### **ISSUE: Civilian Hiring Freeze**

Due to the need to decrease the civilian work force, DOD implemented

an across-the-board freeze on civilian hiring in January 1990. The Air Force had already taken steps to do this by instituting its own hiring restriction in November 1989. A significant relaxation in the DOD policy occurred on April 12th when the Department allowed for interservice and intraservice promotions, transfers, and reassignments. However, the Air Force, in an effort to accommodate shortfalls, is allowing intraservice hiring. Furthermore, the major command commanders are allowed to exempt interservice hires within their budgets. Hiring actions external to DOD require exemption approvals at the Secretary of the Air Force or Secretary of Defense level.

There have been approximately 6,200 civilian end strength reductions as of May 31st. Although direct impacts on the work force have eased since April, problems still exist.

#### **ISSUE: Civilian Personnel Restructuring Initiatives**

Because of civilian personnel reductions, the Air Force is concerned that programs are implemented for those civilians affected by base closures or realignments. More than ten proposals have been introduced in Congress that aim to assist in the restructuring. The administration is preparing legislation to assist civilian employee transition

#### **ISSUE: Civilian Recruitment and Retention**

In addition to dealing with the problems associated with those

civilians displaced as a result of restructuring, the Air Force is also concerned with the recruitment and retention of a qualified work force. The Air Force will continue efforts to provide a work environment that fosters quality, productivity, efficiency, and an opportunity for individuals to realize their full potential. During a recent study conducted by the US Merit Systems Protection Board, almost one-third of those government employees resigning said their reasons were related to insufficient pay. Pay reform that will enable the Air Force to compete for the talent it needs is essential. Pay reforms incorporating provisions that reflect geographic and occupational variations in pay, as well as provide flexibility to respond to special situations, will enable the Air Force to recruit and retain quality employees.

There are a number of pay reform proposals currently before Congress. Negotiations are ongoing in an effort to resolve some of the controversial aspects of the various bills. It is hoped that immediate relief will allow for payment of geographic differentials in certain locations due to cost of labor, a nationwide 5-percent salary increase (differential) for college entry-level occupations, and recruitment and relocation bonuses.

The Air Force needs to continue to provide innovative mechanisms in response to the changing environment. Employment alternatives that will encourage part-time, shared, and home work programs are essential recruitment and retention tools. PALACE Acquire, our centralized

college recruiting program, must be continued if we are to recruit young talent. Furthermore, programs that will allow for expanded special rates, direct hire authority, payment for degree programs, and repayment of loan expenses would all serve to assist in recruiting and retaining quality employees.

### **ISSUE: Morale, Welfare, and Recreation (MWR) Funding**

Over the past 5 years, Congress has increased its oversight of MWR and classified MWR activities into three funding categories, clearly delineating where appropriated funds (APF) and nonappropriated funds (NAF) can and cannot be spent. Congress directed the removal of taxpayer funding from revenue-generating activities which it feels should be self-supporting, such as golf courses, bowling centers, marinas, and military clubs. As of October 1, 1990, these activities will no longer be funded with APFs.

### **ISSUE: MWR Abuse**

Recently Congressional, DOD, and Air Force attention has focused on alleged abuses in the Air Force MWR program from 1983 through 1989. In response to these allegations, the Secretary of the Air Force directed an Air Force Audit Agency audit of MWR revenue-generating activities at 32 installations. This was done to determine if the alleged problems were isolated or if they reflected an Air Force-wide lack of control. Unfortunately, these audits showed the problems to be widespread.

As these audits were being conducted, the Air Force initiated action to expand Secretariat oversight and improve management of MWR financial operations. These included appointing a senior Air Force Steering Committee to examine operational, financial, and organizational structures and recommend changes; appointing two Assistant Secretaries to the MWR Board; placing responsibility for MWR financial policy and oversight under the Assistant Secretary for Financial Management; developing financial standards to measure performance of revenue-generating activities; tightening construction and maintenance policies by setting major command funding limits for NAF facility repairs; and strengthening Congressional notification procedures.

The actions taken to date provide an initial framework toward correcting identified problems. The on-going Senior Steering Committee review is committed to taking action to assure MWR programs are operated in the most effective and efficient manner possible.

## **BASING**

### **ISSUE: Base Realignments and Closures**

Today there are 141 major Air Force installations including 103 in the continental United States (CONUS) and 38 overseas. Base Closure Round I consists of the five bases recommended for closure by the Secretary of Defense's Commission on Base Realignment and Closure and implemented by Public Law 100-526.

The schedule for closures is Pease in 1991, Chanute, George, and Mather in 1993, and Norton in 1994. The Round II candidates to be studied for closure were announced on January 29, 1990, and included Comiso, Erhac, Eskisehir, RAF Fairford, RAF Greenham Common, Hellenikon, Kwang-Ju, and RAF Wethersfield in 1991, Suwon, Taegu, and Eaker in 1992, Bergstrom and Myrtle Beach in 1993, and Los Angeles and Zweibrucken in 1994. On April 30, 1990, three more bases were announced as reasonable alternatives to be studied for closure. The Myrtle Beach Environmental Impact Statement (EIS) now includes England and Davis-Monthan, and the Eaker EIS includes Wurtsmith.

The CONUS base closures will be done in accordance with Title 10 USC 2687 (overseas actions are technically withdrawals of personnel rather than closures). Section 2687 is the legal statute which applies to stateside base closures and realignments, and is triggered by reducing or relocating civilian positions. In accordance with this law, the Air Force must prepare evaluations of the fiscal, local economic, budgetary, environmental, strategic, and operational consequences of candidate moves. These evaluations, except for environmental, must be made in addition to any EIS or other analysis required by the National Environmental Policy Act (NEPA). Furthermore, notification of intent to close bases can only be made once a year in the President's Budget request; out of cycle reports do not meet statutory requirements.

The law is cumbersome and by its nature presents a series of political roadblocks to effective force structure realignment. The DOD-sponsored bill introduced by Senator Nunn (D-Georgia) would allow future base closings to operate under the same relief given to the Base Closure Commission. If passed the bill would allow NEPA waivers (NEPA would only apply after the decision to close/realign). The Secretary of Defense would be given disposal authority for excess and surplus property and authorization to retain proceeds from land sales resulting from base closure actions. It would establish a base closure account; allow submission of closure candidates as part of the normal Planning, Programming, and Budgeting System; and evaluate costs and savings as part of the process, but without the 6-year payback limitation.

**ISSUE: 401st TFW Move to Crotone**

The Air Force plans to move the 401st Tactical Fighter Wing from

Torrejon AB, Spain to Crotone AB, Italy, to provide a continued US presence in NATO's strategic and volatile southern region. Congressional opposition to the move focuses on NATO burdensharing, CONUS base closures, and perceptions that the United States and NATO are supporting "urban renewal" for Italy. Consequently, in an attempt to limit the US share of the costs, the FY 90 Authorization Act restricts US expenditures to a maximum of \$360.0M through FY 93. In addition, the House is considering bills that would prohibit the 401st move to Crotone, or any place else overseas, and require "dual basing" of forces currently stationed outside the United States. Finally, some Senators have expressed support for alternatives that rotate units in and out of Crotone with fewer full-time personnel on accompanied tours. NATO, Italy, and the Air Force remain committed to the 401st move to Crotone.

## READINESS AND SUSTAINABILITY



# READINESS AND SUSTAINABILITY

## **ISSUE: O&M Account**

The Operation and Maintenance (O&M) appropriation is the Air Force readiness account. It provides the funds needed to operate and maintain all of our weapons systems; train personnel; operate command, control, communications, and computers (C<sup>4</sup>) systems; pay civilian personnel; and purchase supplies, equipment, and fuel. O&M also supports essential combat-related activities such as intelligence, logistics, weather, air traffic control, search and rescue, medical operations, maintenance of runways and base facilities, contract services, and the working and living environment of Air Force personnel. The Air Force builds this appropriation based on programmed force structure and operating activity levels such as flying hours, deployments, work years, and scheduled weapon system maintenance. O&M resources must be sufficient to support the force structure and to sustain a mission ready force of existing weapon systems as well as new or modernized systems.

Recent Congressionally mandated O&M reductions (e.g., \$1.0B in FY 90), if continued, could seriously impact readiness. We have always sought to reduce O&M costs through efficiencies without adversely impacting our mission support capabilities. For example, Defense Management Review (DMR)

efficiencies enabled us to reduce our FY 91 O&M request by \$733M without adversely affecting our capabilities. Congressional reductions exceeding those already taken by the Air Force could have serious impacts on Air Force readiness.

## **ISSUE: Aircraft Replenishment Spares**

Aircraft replenishment spares are vital for training, readiness, and sustainability. Maintaining sufficient aircraft replenishment spares is a unique problem because they are often not readily available outside existing Service stockpiles. Even in a national emergency, some aircraft spares might not be available for 2 years or more because of long procurement and manufacturing lead times, caused primarily by a relatively small defense industrial base already burdened with supporting old and new aircraft technologies.

As a result of the DMR, the Air Force will begin procuring replenishment spares using the Air Force Stock Fund in FY 91. Consequently, the funding previously contained within the central procurement appropriation is now the responsibility of the stock fund operating program. This major change aligns financial accountability with the user and provides better utilization of on-hand materiel, resulting in savings in materiel acquisition and depot repair. Our FY 91 projected budget

assumes \$204M in savings from this initiative.

Programmed FY 91 stock fund obligation authority for the new Reparable Support Division will, given planned changes in force structure and flying hours, fully finance our expected peacetime operating requirements. Both aircraft and ground systems war reserve materiel (WRM) funding is also now under the stock fund appropriation. The President's Budget finances war reserve spares at \$452.3M, 92 percent of which supports new forces coming into the inventory. This level provides sufficient funding to maintain the current capability as we currently possess while hedging against potential changes in the threat, force structure, and plans. Unstructured cuts in this arena will result in new weapons systems like Block 50 F-16s, F-15Es, and C-17s being delivered without wartime spares.

#### **ISSUE: Air Force Stock Fund Appropriation**

Two significant DMR initiatives in stock fund operations give the appearance of increasing the stock fund budget from \$126M in FY 90 to \$1,340M in FY 91. However, the increase is not real growth, but the result of a transfer of funding responsibility from the O&M and central procurement accounts. In fact there is no "growth" here. Instead, there is overall reduction to the Air Force budget when the transfers are taken into account.

The most significant transfer is moving the cost of Air Force Logistics

Command (AFLC) overhead for inventory management and supply operations from the O&M account to the stock fund. Beginning in FY 92 these costs will be included in the cost of items sold to the stock fund customers. Because of the lead-time required to implement this change, only the stock fund appropriation will provide reimbursement for these critical activities. This accounts for \$888M of the \$1,340M requested.

The second major change is the transfer of repairable WRM from the procurement appropriation to the stock fund appropriation. This change accounts for \$301M of the \$1,340M. War consumable spares, medical and dental items, and fuels already funded in the stock fund account for \$72M of the remaining \$151M; this equates to the \$126M appropriated in FY 90. The final increment of \$79M is required to comply with the FY 90 Defense Appropriations Act language directing a refund to the "M" account to repay money used to satisfy delinquent O&M fuel billings prior to FY 86.

Fully financing the stock fund appropriation is critical to our ability to implement DMR initiatives (savings \$268M); maintaining aircraft readiness and sustainability; and financing our AFLC supply operations.

#### **ISSUE: Misconceptions about Spare Parts**

The Air Force manages more than 900,000 items of spare parts, spare engines, and support equipment valued at approximately \$63B. Over 70 percent of this, or \$45B, comprises

our secondary item inventory, more commonly referred to as spare parts. The value of the spares inventory has grown significantly from \$19B in FY 80 to \$45B in FY 89. Reasons include modernization (both new weapon systems procurement and modifications), a conscious commitment to improve readiness and sustainability, changes to retention policy, and price escalation. However, while the value of our spare parts inventory has increased, the ratio of the spare parts inventory value to the value of the end items they support (e.g., F-16, AIM-9, etc.) is the same now as it was in FY 80.

Although the results of the investment of the last 10 years produced dramatic improvements in readiness and sustainability, the General Accounting Office (GAO) and others have criticized the Air Force for growth in its "excess" inventory. They cite the growth in long supply and the overcrowding of our depot warehouses as factors which inhibit our ability to manage effectively and account for our inventories. The Air Force has been working these issues diligently and the GAO acknowledged in a 1988 report on Air Force inventory management that accuracy rates are improving.

Recent DMR-driven changes in stock fund procedures could obscure Air Force successes in improving inventory management during the late 1980s. The initiatives which moved depot level reparable into the stock fund and included overhead costs in stock fund pricing, will drastically increase the monetary value of stock fund inventories. This will occur even

if there is no increase in number of assets owned by the Air Force. We must dispel any perception of excessive inventory growth to avoid arbitrary adjustments to our programmed inventories. Our projected inventories provide the minimum acceptable levels for readiness and sustainability.

## **ISSUE: Munitions Procurement and Storage**

Providing top-quality munitions to our forces is a high priority. Although the Air Force is still able to meet mission requirements, overall budget constraints have slowed previously programmed increases in procurement of modern munitions. The 6-year outlook no longer reflects the growth originally planned. Nevertheless, our revised program consists of an integrated, steady acquisition strategy that will improve the total combat capability of the Air Force.

Congressional interest and oversight has been keen in the munitions area for the past several years. Of key concern is the size of the ammunition production base and the need to keep it healthy so it meets national security requirements. While the Air Force funding line for munitions has decreased, the training munitions account has increased enough to alleviate some of this Congressional concern. Training ammunition comprises 58 percent of the FY 91 budget request, the first time in many years that training ammunition exceeds the war reserve materiel (WRM) ammunition request.

Our existing air-to-surface inventory will permit us to fly 100 percent of projected wartime sorties with full weapons loads. However, many of those missions would be flown with less effective, general-purpose munitions resulting in higher aircraft attrition rates and reduced effectiveness. Additionally, peacetime training and test expenditure of older general purpose munitions, for which there is no further procurement planned, gradually erodes the WRM inventory of these weapons.

Overseas storage capacity and insufficient funding for secondary destination transportation create shortfalls in prepositioning required weapons. Initiatives are ongoing to resolve these problems. To enhance our capability against critical surface targets, we are developing a new generation of more effective weapons.

#### **ISSUE: Military Construction Program**

The Military Construction (MILCON) Program provides the necessary funding for design, construction, alteration, and improvement of military facilities to perform the worldwide Air Force mission. The program supports new or expanded weapon systems and initiatives to enhance the CINCs' warfighting capabilities, as well as projects that improve the quality of life for Air Force people. Run-down, inefficient, and inadequate facilities limit productivity and contribute to low morale and retention problems.

The Air Force's MILCON appropriations have been insufficient

in recent years and many of our existing facilities are becoming obsolete. From FY 83 to FY 86 our MILCON program averaged about \$1.5B annually. For FY 87, 88, and 89, our annual program was reduced to \$1.2B. Our FY 91 MILCON request is for \$1.4B, providing limited funding for capital investment projects critical to the readiness and retention of quality people.

Congressional concerns about MILCON include reductions in American troops stationed overseas, a decline in future defense funding, arms control agreements weapons and delivery systems, anticipated force structure draw downs at stateside locations, and the increased attention needed to maintain a high quality, motivated force. There has been Congressional pressure to reduce overseas MILCON projects, and we are doing exactly that. However, certain overseas projects are vital to our overseas interests, and we are working to obtain the necessary funding.

#### **ISSUE: Real Property Maintenance**

The Air Force's FY 91 Real Property Maintenance (RPM) funding request represents our efforts to maintain and upgrade physical plant facilities averaging over 30 years of age. We are faced with the fact that, given current constrained funding, annual deterioration is exceeding our ability to maintain and improve our facilities. The mission impact of deteriorated facilities, while subjective, nevertheless has a negative effect on performance, quality of life, morale, and retention.

## **ISSUE: Backlog of Maintenance and Repair**

Because of overall budgetary constraints, RPM funding could not be increased sufficiently to arrest growth in the Backlog of Maintenance and Repair (BMAR). The BMAR is expected to grow to \$1.6B by the end of FY 91. In practical terms, this means there is a 3-year lapse between the time a needed project is identified and funding is available. Congressional reductions to RPM will lengthen this gap.

BMAR reflects the condition of facilities and the adequacy of past funding by quantifying the cost of deferred work. A large BMAR prevents normal physical plant maintenance from being performed when needed, further accelerating the rate of deterioration and increasing the eventual cost of repairs. Adverse mission impacts include degraded operational effectiveness, safety, quality of life, readiness, and sustainability.

## **ISSUE: Revitalizing Military Family Housing**

Military Family Housing (MFH) has been an integral part of Air Force life since 1947. The cost, quality, and availability of housing for military families is a major concern for the Air Force. Adequate family housing is a high priority for married members and directly affects morale. When off-base housing is not available or is too costly, the Air Force constructs housing units on or near the base. We currently own and operate over 140,000 housing units worldwide.

The FY 91 budget requests level MFH funding to continue revitalization of our housing inventory which averages 30 years of age. With this level of funding, it will take 22 years to bring the present backlog, about half of our inventory, up to the standards commonly found in the civilian community. Congressional reductions to MFH will lengthen the time required to improve the housing for our personnel.

## **ISSUE: Environmental Compliance Program**

The Air Force is committed to increasing the effectiveness of all aspects of its environmental compliance program. Although the DOD budget is shrinking, the Air Force must improve its environmental management and eliminate environmental compliance deficiencies. The Air Force FY 91 environmental compliance funding at over \$150M while Defense Environmental Restoration Account (DERA) funding is \$287.7M. By FY 93, more than \$500M will be budgeted for environmental compliance.

The Air Force has budgeted for the resources necessary to meet regulatory requirements and improve environmental programs in the individual appropriation accounts; these include O&M (almost 60 percent of the environmental compliance funds), MILCON, research and development, procurement, and others. The O&M environmental compliance budget is further divided into Environmental Operations and Services, and Environmental Projects. The former involves annually

recurring, "must do" requirements associated with standard operations (such as hazardous waste disposal and water sampling). Environmental projects funds projects and services necessary to meet regulatory requirements, fix existing noncompliance problems, and enhance the environment (such as sewage treatment plant upgrades and underground storage tank replacement).

We are working to increase the technical expertise of Air Force envi-

ronmental personnel through improved training. We have developed a fact-packed, hard-hitting Environmental Leadership Course to provide Air Force commanders the environmental background necessary to effectively manage their programs. We are pursuing better communication with both State and Federal regulators through the regional environmental offices. Finally, we have developed improved procedures for identifying, programming, and budgeting environmental requirements.

## MANAGEMENT REFORMS



# MANAGEMENT REFORMS

## ISSUE: Defense Management Review (DMR)

In February 1989, President Bush called on the Department of Defense to "... develop a plan to accomplish full implementation of the recommendations of the Packard Commission and realize substantial improvements . . . in Defense Management overall." Secretary Cheney responded to the President in July 1989 with a report to the President on Defense Management. This report outlined a series of specific management initiatives for better teamwork among DOD's senior managers, longer-range defense planning, and sound decisionmaking on use of defense resources. The report also described significant changes to be made to streamline and discipline the defense procurement process and encourage better accountability and performance by defense contractors. Secretary Cheney released the DMR concept and general recommendations to the public on January 11, 1990; detailed savings followed on January 29, 1990.

The Air Force approach to DMR, strongly endorsed by the Secretary and Chief of Staff, goes one step beyond Secretary Cheney's report. A thorough analysis of the report resulted in dividing DMR tasks into three categories:

- Specific DMR tasks (mainly acquisition specific)
- Collateral tasks (those associated with DOD Task Forces)
- Derived tasks (tasks gleaned from the report that focused on management efficiencies outside the acquisition area)

Senior Air Force leadership looked at the best approach to obtain Air Force-wide support for DMR. The focus was on generating ideas, not dollars, by expanding "DMR thinking" Air Force-wide. Top down guidance from the Secretary and Chief "primed the pump" by giving examples for consideration. Bottom up initiatives were submitted by the major commands and separate operating agencies to reduce layering, streamline operations, consolidate functions, and improve management efficiencies. Air Force DMR efforts resulted in the generation of over 550 initiatives that were reviewed by the corporate Air Force Board Structure. We are continuing to evaluate the remaining initiatives, ensuring the implementation of approved initiatives remains on track, soliciting new ideas, and institutionalizing the DMR philosophy into the Air Force at large.

## ISSUE: Merged Accounts

There are two types of accounts (authorized as a result of Public Law 84-798 passed by Congress in 1956) which are of current Congressional interest: the Merged Surplus account and the Successor "M" account.

Congress appropriates "budget authority" which permits the Air Force to obligate the government to pay for goods and services up to the limits set by Congress. Congress does not provide cash to pay the obligations. Budget authority is made available for new obligations for a specific period of time. After that period expires, budget authority that has not been obligated is withdrawn into the Treasury's Merged Surplus account. Two years after expiration, the budget authority lapses. In contrast, obligated amounts that have not been paid are retained in the Successor "M" account. Neither the Merged Surplus nor the Successor "M" accounts can be used to fund new obligations.

Congress is very concerned about the amount of total budget authority in the Merged Surplus and

Successor "M" accounts. Presently there is no way to automatically reduce or eliminate funds in the accounts because they were appropriated by previous Congressional sessions. Some members of Congress consider these accounts to be a "slush" fund used to circumvent Congress and the appropriation process, thereby avoiding the effects of Gramm-Rudman sequestration. The Air Force does not share this view. These accounts provide an expedient method for paying valid claims arising from prior year transactions that were liquidated while the appropriations were active. In fact, it is common practice to cite the Successor "M" account to pay valid prior year claims. Similarly, the Merged Surplus account is used only for the purpose of restoring money to the Successor "M" account if recorded obligations were too low or obligations were not originally recorded due to errors. Congress has the authority to rescind expired budget authority, thereby eliminating any carryover to these accounts.

## FORCE MODERNIZATION



# FORCE MODERNIZATION

## ARMS CONTROL

### ISSUE: START

The Strategic Arms Reduction Talks (START) Treaty will be the first agreement in history to reduce strategic nuclear weapons. It is a significant milestone not only for reducing the total number of weapons, but for the manner in which the reductions will occur. Nuclear deterrence and complemented by effectively verifiable arms control reductions work together to enhance stability and reduce the likelihood of war. START focuses on reductions and limits on ballistic missile weapons, those posing the most formidable threat to our retaliatory systems, while encouraging slower responding systems, like bombers, that present no first-strike threat. This emphasis is achieved through the treaty's weapons accountability procedures. Ballistic missile warheads are strictly and fully accounted for and will be limited to a total of 4,900. The remaining 1100 accountable weapons are composed of penetrating bombers and a proportion of the cruise missile carriage capability of our cruise missile carrying bombers. Cruise missile carriers represent 8 or 10 (Soviet and American, respectively) accountable weapons even though specific aircraft may carry as many as 12 or 20 missiles. Penetrating bombers, that carry only short-range missiles and gravity weapons, the least destabilizing systems, are counted as only one accountable weapon despite

the actual weapons load carried. START will, therefore, result in 6,000 accountable weapons for each side, with weapon counting rules that encourage more stable force structures. Yet it will still reduce ballistic missile warheads by about 40 percent.

From the US perspective, the most destabilizing Soviet system is the heavy SS-18 ICBM. Equipped with up to 10 multiple independently targetable reentry vehicles (MIRV) per missile, the 308 SS-18s pose the greatest threat to the survivability of our fixed-based, retaliatory systems. Under the terms of the START Treaty, the Soviets will cut the number of SS-18s in half, to 154 missiles, but they will also be able to modernize the force. This modernization program will increase the accuracy and yield of the SS-18 so the Soviets will retain a very credible, heavy ICBM capability, but in greatly reduced numbers from what they could legally field without the treaty. It is the US position that the trend of START, to de-emphasize the heavily MIRVed ICBMs, would carry forward to further arms control agreements. Such a trend would favor additional reductions or elimination of those systems most threatening to global stability, and the Soviet heavy ICBM force fits that discription.

## **ISSUE: Negotiations on Conventional Armed Forces in Europe (CFE) Treaty**

On March 9, 1989, in Vienna, the 16 NATO nations and the 7 Warsaw Pact nations opened negotiations on Conventional Armed Forces in Europe (CFE). The objectives of CFE negotiations (agreed upon by all NATO and Warsaw Pact nations) are: to establish a secure and stable balance of conventional forces at lower levels; to eliminate disparities prejudicial to stability and security; and to eliminate, as a matter of high priority, the capability for launching surprise attack and initiating large-scale offensive action.

The 23 nations have agreed to limit the numbers of tanks, artillery pieces, armored combat vehicles, attack and assault helicopters, and combat aircraft (including interceptors) in the Atlantic-to-the-Ural (ATTU) zone. The United States and the Soviet Union have bilaterally agreed to put a cap on the number of forces stationed outside their respective national territories within the ATTU. Negotiators continue to define terms, adjust force levels, and address verification requirements. While CFE negotiations have not progressed as rapidly as desired, the US goal remains a Europe free from the threat of domination by force.

It is necessary for the Air Force to stay actively involved in the multiple arms control process, especially as cuts in one arena -- CFE driven reduction in tactical aircraft, for example -- will have a direct bearing

on our ability to accomplish military missions.

## **NUCLEAR FORCES**

### **ISSUE: B-2**

Our commitment to the B-2 bomber is rooted in the historical experience of long-range bomber development and operations, the bomber's indispensable role in supporting nuclear deterrence, and the unique flexibility that makes it a particularly effective weapon for conventional operations and the projection of US power. Understanding the flexibility of long-range bombers -- in both nuclear and conventional operations -- is the key to understanding their utility in supporting US national security objectives. The rapid changes in the global security environment have added unprecedented uncertainty to our security planning and have increased the importance of flexibility and adaptability available with the B-2.

The B-2 will be a mainstay of the nation's nuclear deterrent Triad well into the next century. Its stealth technology revolutionizes our manned bomber force and prevents the atrophy of the airbreathing leg that would lead to the eventual disintegration of the balanced Triad concept. With its combination of penetrativity, accuracy and weapon yield, and "man-in-the-loop" damage assessment, the B-2 can hold the full range of targets at risk. As a result, the B-2 will carry out the same mission as its predecessors, such as

the B-36 and the B-52 -- deterrence of nuclear war by holding valued enemy assets at risk by retaining the ability to penetrate enemy airspace and destroy enemy targets.

In its conventional role, the B-2 will be a formidable weapon. It can be configured to meet the changing needs of our national security while its stealth characteristics provide important survivability advantages over earlier technology bombers. Its long range and large payload will enable the B-2 to deliver massive quantities of conventional ordnance against any potential adversary anywhere on the globe with the least risk to US forces.

Some opponents have expressed concern that the B-2 consumes an excessive share of the defense budget, forcing curtailment or termination of other programs vital to national defense. In fact, the B-2 program consumes a smaller part of the defense budget over its procurement period (1.1 percent) than either the B-52 (1.4 percent) or the B-1B (1.6 percent). While "sticker shock" is an issue for some, much of the cost is due to the revolutionary technologies developed during the extensive research and development phase. This investment is now a sunk cost and will yield a stream of benefits for both military and non-military developments in the future. In the final analysis, the B-2 should be judged not on its cost but on the value of its contributions to deterrence.

The revolutionary technologies exploited by the B-2 have led to concern about program risk and

concurrency. To reduce risk wherever possible, the B-2 program included the most comprehensive computer-aided design and simulation program in the history of aircraft development. In addition, while some production aircraft were funded before flight test completion, the program is structured to balance concurrency and program costs. Unlike most test aircraft which are unique prototypes, the B-2 test aircraft are manufactured using actual production tooling. The earliest flight testing has confirmed the accuracy of the computer simulations used to develop the engine and airframe design parameters. To date, the B-2 has completed 16 test flights and accumulated over 60 hours of flying time -- no significant problems have been encountered.

The Secretary of Defense's recently completed Major Aircraft Review validated the requirement for the B-2 bomber but did reduce the programmed buy from 132 to 75 aircraft. Secretary Cheney's decision to continue the B-2 program is based on the need for an effective manned penetrating bomber to assure future deterrence. However, he also said changing world conditions allow the United States to achieve an acceptable level of deterrence with a smaller B-2 fleet and lower aircraft production rates.

#### **ISSUE: B-1B ECM**

The B-1B performs today's strategic bomber penetration mission better than any other operational aircraft in the world. Nevertheless, it has experienced some problems with the ALQ-161A electronic counter-

measures (ECM) suite. Although the most critical ECM techniques work, flight test results reveal the defensive avionics system has a design deficiency which precludes full system performance. After a broad-based review assessing available options, the Air Force developed a two-pronged recovery plan to improve B-1B ECM effectiveness. First, we are proceeding with a "core" ALQ-161A program that provides a common fleet-wide configuration, matures the on-board maintenance diagnostic system, completes the logistics support efforts, fields the tail warning system, and improves reliability against key threats. The second phase of the recovery plan improves the crew's situational awareness by installing a stand-alone radar warning receiver to augment the current "core" system. When completed, this plan will enhance the B-1B's ability to meet evolving threats in the mid-term while establishing the foundation for future growth.

#### **ISSUE: Advanced Cruise Missile (ACM)**

The ACM (AGM-129A) is a second generation cruise missile that provides greater range, accuracy, and lethality than the first generation ALCM-B (AGM-86B). Just as important, its low observable features improve survivability and increase its probability of arrival even against well-defended targets. As of July 1990, the ACM test program had completed a total of 15 successful test flights, giving it a flight test success rate comparable to the ALCM-B and ground-launched cruise missile (GLCM). As a result, the Secretary of

Defense was able to satisfy Congressional requirements by certifying completion of a minimum of 4 successful test flights since June 1, 1989, making the percentage of successful flights significantly greater than 50 percent. The Air Force is proceeding toward completion of full-scale development and a full-scale production decision later this year.

Plans call for the ACM to be deployed on the B-52, and operational testing and certification is proceeding. While ACM testing on B-1B test aircraft has been proposed, the Air Force has not identified an operational requirement for cruise missile-equipped B-1Bs and questions remain about how such testing would impact bomber forces under START. Consequently, it is premature to proceed with B-1B/ACM compatibility testing at this time. A lapse between near-term testing and a downstream operational requirement may allow B-1B and ACM software (and possibly hardware) to diverge. This would necessitate reaccomplishing many of the tests previously performed, significantly increasing costs. Instead, in the interest of completing testing in the most cost-effective manner, integration testing for possible future ACM deployment on the B-1B will begin lead-time away from an operational requirement.

#### **ISSUE: Short-Range Attack Missiles (SRAM)**

The SRAM-A (AGM-69A) is a supersonic air-to-surface missile that has been in service with the Air Force since 1971. Carried on our strategic

bombers, it is used to neutralize enemy air defenses, such as surface-to-air missile sites, and to strike heavily defended targets. Although SRAM-A remains a safe weapon, recent publicity has focused on warhead safety issues. Like all nuclear weapons in the US stockpile, it is designed and maintained under strictly enforced and periodically reviewed procedures to ensure public safety. SRAM-A procedures were reviewed in the summer of 1989, and, based on that review, the Joint Chiefs of Staff approved modifications to SRAM-A procedures. However, Secretary of Defense Cheney deemed it prudent to remove SRAM-As from ground alert aircraft pending the outcome of additional Air Force and Department of Energy safety studies. As a result, aircraft remain on ground alert but are not loaded with SRAM-As.

The Air Force has been developing the SRAM II (AGM-131A) as a follow-on to the SRAM-A since 1987. Warhead modernization is the primary reason for pursuing the SRAM II program. Additional impetus for modernization included rocket motor aging, increasing rates of component failure, and possible spare parts difficulties. While designed to attack the same types of targets as SRAM-A, SRAM II will have performance improvements, such as longer range and bigger launch "footprint", which increases its effectiveness.

#### **ISSUE: Intercontinental Ballistic Missile (ICBM) Modernization**

A strong and balanced Triad has been the basis for our successful

deterrent strategy for over three decades. Key to maintaining strength and balance is force modernization, and the Air Force has continually modernized the ICBM leg through a series of improvements to the deployed Minuteman force and the deployment of 50 Peacekeeper missiles in silos. Beyond the silo-based Peacekeeper program ICBM modernization has focused on improving survivability mobility.

The Air Force follows a time-phased approach to modernization by pursuing the Peacekeeper Rail Garrison program for the near term followed by the Small ICBM. However, the scope and pace of our modernization effort must be evaluated against a variety of factors.

The imminent START Treaty and the potential shape of any follow-on agreements, the significant changes taking place in the world today, and the realistic forecast of continued defense spending reductions must be taken into consideration in determining the future of ICBM modernization. In light of these factors, the Air Force has recommended a pause in the deployment phase of our ICBM programs. A decision to continue development of the Peacekeeper Rail Garrison program to completion, but refrain from deployment, would have several positive benefits. It would fully demonstrate our modernization capabilities to the Soviets, with all the advantages this would yield in arms control negotiations, and those capabilities would be put "on the shelf," available for future use in a relatively short time should the need arise. It would also preclude making

the investment required to add mobility to a MIRVed ICBM when such a system could be subject to further restrictions or elimination in a subsequent arms control agreement.

Since the Small ICBM is still in the early stages of development, it would be impacted less by any decision favoring a pause in the modernization program. In the long term, the Small ICBM's single warhead offers great stability enhancement. In the meantime, however, a pause in deployment allows Small ICBM development to proceed on a more measured pace as an eventual replacement to our Minuteman force, beginning around the turn of the century.

#### **ISSUE: Peacekeeper Rail Garrison**

The Peacekeeper Rail Garrison program would redeploy our 50 existing silo-based Peacekeeper missiles onto trains, improving survivability, increasing crisis stability, and enhancing deterrence. Operationally, Peacekeeper Rail Garrison missile trains will remain in non-hardened secure areas, or garrisons, on existing bases during peacetime. Missiles will be on alert and be able to launch from within the garrison with the same accuracy and responsiveness afforded by silo-basing.

In times of national need, however, Rail Garrison will be able to rapidly disperse Peacekeeper missiles to over 120,000 miles of the nation's rail net. Through dispersal, system survivability is improved despite a lack of traditional "hardened" facilities

designed to ride out an enemy attack. After only a few hours of dispersal time, the total number of possible Peacekeeper locations becomes so great that the system is virtually impossible to attack. Simultaneously, it serves as a non-threatening signal of national resolve since dispersal increases only system survivability, not the number of on-alert warheads.

With the current program calling for delivery of the first Peacekeeper Rail Garrison train in 1992, Congressional opponents have questioned whether excessive concurrency increases overall risk. Despite its near-term availability, Peacekeeper Rail Garrison minimizes program risk by relying primarily on existing missile and train technologies. The Peacekeeper is a proven, highly accurate weapon with the most successful land- or sea-based ballistic missile flight test record ever -- 20 successful flights out of 21 tests. All cars and engines, with the exception of the missile launch car, utilize standard railroad technology. The unique aspects of Peacekeeper Rail Garrison have been tested extensively to mitigate concurrency concerns. For example, cold launch testing with a missile launch test car demonstrated that a Peacekeeper launch would not damage the rail bed. Similarly, mobility testing of the guidance set indicates the missile could successfully "navigate" while deployed on the rails. By integrating existing technologies and prudently testing those items unique to the program, Peacekeeper Rail Garrison would provide mobility in the near-term with the least cost and low overall risk.

## **ISSUE: Small ICBM**

The Small ICBM program is designed to provide our land-based ICBMs with increased survivability and enhance operations throughout the spectrum of nuclear conflict. Deploying the Small ICBM in a mobile mode would feature missiles in hard mobile launchers (HML) which provide pre-launch mobility and survivability. The preferred mobile Small ICBM basing mode would deploy missiles on Minuteman launch facilities from which the all-terrain HMLs could dash on tactical warning to achieve a high level of survivability in less than 15 minutes. Alternatively, Small ICBMs could be deployed in a mobile mode to the Southwest United States where they would utilize both random movement and their dash-on-warning capability. With either basing plan, system survivability would be achieved by dispersing to such a wide area that the Soviets could not achieve a viable attack strategy. With its relative invulnerability to all attack scenarios, some propose Small ICBM be rushed into production and deployment. However, unlike Peacekeeper Rail Garrison, the Small ICBM program does not have a proven missile or mobility platform (train or HML). Prudent program management, balancing technology development and program risk, points to a deployment schedule toward the end of the decade. Earlier delivery dates and shorter timelines increase concurrency and overall program risk, while significantly increasing near-term costs during a period of declining defense budgets.

## **THEATER FORCES AND POWER PROJECTION**

### **ISSUE: Advanced Tactical Fighter (ATF) Development**

The ATF program will develop a new air superiority fighter for introduction in the early 2000s. A follow-on to the F-15, the ATF will be capable of gaining and maintaining air superiority against current and future adversary fighters, to guarantee freedom of maneuver for ground, air, and naval forces. Incorporating a revolutionary blend of superior aerodynamic performance, low observable signatures, and advanced integrated avionics, the ATF will be lethal, durable, and survivable in the future high threat environment. The ATF is currently in the demonstration/validation phase of development, aimed at reducing government risk before entering full-scale development (FSD). The Navy is participating in ATF development, to replace the F-14. Two ATF prototypes began flight testing in late FY 90. Initial operational capability (IOC) is tentatively scheduled for the early 2000s.

Congressional concern focuses on the validity of the ATF requirement, both qualitative and quantitative. Qualitatively, the Major Aircraft Review (MAR) confirmed the ATF requirement. The current Soviet Fighters (MiG-29 and Su-27), with their look-down/shoot-down capability, are at essential parity with our F-15 and F-16 aircraft and over 1300 operational aircraft are deployed

worldwide (Soviet Union, Iraq, Cuba, North Korea, Syria, India, East Germany, Poland, Czechoslovakia, Bulgaria, and Yugoslavia). With near qualitative equivalence and quantitative superiority, they pose a significant potential threat across a broad spectrum of conflict. The prospect for entirely new follow-ons to the Su-27 and Mig-29, possibly incorporating low observable technology, sometime after the turn of the century remains a concern.

To meet the current and future threat, the MAR considered several alternatives to the ATF, including a single-engine version and several modifications to existing aircraft (F-16, F-15). They concluded that the ATF as designed is the only alternative that could meet validated Air Force requirements. However, given the current political environment and fiscal realities, the MAR accepted the increased military risk associated with a 2-year slip (from FY 94 to FY 96) in initial ATF production. In addition, the maximum production rate was reduced from 72 to 48 aircraft per year. Planned procurement remains at 750 aircraft, but that number is subject to re-evaluation with future force level changes.

#### **ISSUE: Advanced Tactical Aircraft (ATA) Development**

The ATA is the Air Force version of the Navy A-12. It will be used for the interdiction mission, now handled by the F-111 (long-range) and F-15E (mid-range) aircraft. The ATA's primary design attributes include long range, night and in-the-weather penetration capability, enhanced

survivability, and capability to deliver improved air-to-air and air-to-ground weapons. Initial operational capability is now planned for the early 2000s.

The FY 91 President's Budget called for ATA production beginning in FY 93. However, the MAR determined that ATA production could be deferred beyond the 6-year defense plan (FY 92-97) with acceptable military risk. The Navy's A-12 provides a strong hedge until changes in the threat or F-111 airframe aging require ATA procurement to be accelerated. The MAR also confirmed the ATA as the best choice to meet future Air Force long-range interdiction requirements.

#### **ISSUE: F-15E Procurement**

The F-15E provides enhanced mid-range interdiction capabilities, augmenting the F-111 in the long-range interdiction role, while retaining the F-15's inherent air superiority characteristics. Current fiscal constraints mandated a reduction in planned production from 278 to 200. Multi-year procurement is no longer viable due to low production rates. At issue is whether F-15 procurement should be extended given the current slips in both the ATA and ATF programs.

While the F-15E is a highly capable mid-range interdiction aircraft, it is not a suitable substitute for either the ATA or the ATF. Designed to augment, not replace, the longer-range F-111 aircraft, its range and observability characteristics make the F-15E an unsuitable substitute for the ATA in the long term. In addition,

while the F-15E retains some of the F-15C/D air-to-air capabilities, giving the air component commander unprecedented flexibility, its principle role remains interdiction. It does not have the maneuverability, low observability, or sustained speed characteristics necessary to achieve air-to-air superiority in the future. Consequently, the F-15E cannot be viewed even as a temporary replacement for either program.

#### **ISSUE: F-16 Procurement and Modernization**

The F-16 is the primary multi-role Air Force fighter aircraft and is being modernized continuously to meet the evolving threat. F-16 procurement has been reduced from 180 per year in FY 89 to 150 per year in FY 90 but will continue under an economical multi-year procurement plan. Given the force reductions mandated by worldwide events and fiscal realities, Congressional concerns focus on determining the appropriate F-16 procurement rate and the associated implications on existing multi-year contracts. The Air Force will continue F-16 procurement at a rate sufficient to meet force modernization requirements in light of planned force reductions. As world events continue to unfold, and force levels are established, the Air Force will revise F-16 procurement plans.

Planned F-16 modernization includes the Advanced Medium-Range Air-to-Air Missile (AMRAAM), the Low-Altitude Navigation and Targeting Infrared for Night (LANTIRN) system, the ALR-56M Advanced Radar Warning Receiver, the Global

Positioning System (GPS), and integration of anti-radiation weapons (HARM/Shrike). However, with modernization comes an increase in aircraft weight. Consequently, to maintain its designed performance characteristics, the F-16 will be procured with the increased performance engine (IPE).

#### **ISSUE: A-7 Upgrade**

The A-7 aircraft supports the close air support/battlefield air interdiction (CAS/BAI) mission. In order to conduct this mission effectively in the evolving threat environment, A-7 survivability must be improved. The A-7F prototype incorporates recommended improvements in engine, airframe, and avionics systems. The Air Force initially intended to produce the A-7F in a two-phase program; Phase 1 included prototype development and test, while Phase 2 included avionics integration, kit production, and remanufacture of the A-7D/K fleet. Phase 1 has been funded with delivery of the first prototype aircraft in September 1989 and testing scheduled for completion in September 1990. Phase 2 is not funded in the current budget, awaiting the results of the current round of CAS comparison studies and Phase 1 prototype testing.

The A-7F program is part of an ongoing DOD effort to determine the best possible force mix to support the CAS mission in the near future. In light of potential force reductions, Air Force support for the A-7F has diminished. Additionally, Congressional support for the A-7F is not strong. The Defense Acquisition

Board (DAB) is scheduled to address the CAS mission area this fall, and will consider the A-7F along with all other CAS candidates.

#### **ISSUE: AMRAAM Testing and Production**

The Advanced Medium-Range Air-to-Air Missile (AMRAAM) is a high performance "launch and maneuver" missile which will help US and NATO tactical air forces compensate for the highly maneuverable and worldwide-deployed MiG-29 and Su-27 aircraft equipped with modern look-down/shoot-down radars and missiles. It is designed to replace the current AIM-7, a "semi-active" radar missile which must be fired and guided by the aircraft to the target -- one at a time. AMRAAM is an "active" radar missile that permits true "launch and maneuver" capability, allowing the pilot to fire multiple missiles at multiple targets while maneuvering to avoid the threat. AMRAAM is the Air Force's only follow-on radar missile program.

AMRAAM missile test results are better than any other air-to-air missile at this point in its development, with a 76 percent success rate for all shots. Although the highly publicized initial "4v4" (WW III) shot was initially declared a "no test" due to aircraft and missile software problems, the Air Force reaccomplished the 4v4 retest on May 4, 1990. During this successful test, a single F-15 fired four AMRAAM missiles against four separate targets in a dense electronic jamming environment. Three missiles were

direct hits, and one passed within lethal kill distance.

While the AMRAAM test launch results have been favorable, the Captive Carry Reliability Program (CCRP) has identified key manufacturing quality and process problems. While most design problems identified early in the F-16/F-15 CCRP were fixed, some unexpected failures continued. Consequently, the Air Force suspended missile acceptance pending a thorough program review. The Air Force formed three teams to review reliability growth, design adequacy, and contract status. Their review identified concerns in the manufacturing process and in quality control. A corrective action and reliability growth plan is currently being staffed through the Air Force and OSD. Following approval and implementation of the plan, the Services anticipate resuming missile acceptance. AMRAAM missile production will remain at low rate until the DAB has reviewed the results of implementation of the corrective action plan.

#### **ISSUE: Advanced Short-Range Air-to-Air Missile (ASRAAM)**

The ASRAAM is a heat seeking infrared (IR) missile being developed by the United Kingdom and Norway. ASRAAM, a possible follow-on to the AIM-9, was part of an original Memorandum of Understanding (MOU), signed by the United States, the United Kingdom, France, and West Germany, for the cooperative development of both AMRAAM and

ASRAAM. In accordance with this MOU, the United States agreed to develop AMRAAM while the United Kingdom, West Germany, and France accepted responsibility for ASRAAM development. After completion of the program, both missiles would be available to each participating nation. However, the program continues to be plagued with problems; West Germany and France have withdrawn support, and the United States has inferred that the original MOU is invalid. The United States currently has no ASRAAM funding.

#### **ISSUE: Airborne Self-Protection Jammer (ASPJ)**

The ASPJ was a joint Air Force/Navy engineering development program for an internally mounted ECM system with the Navy as the lead service. ASPJ was terminated as a budget offset for higher priority Air Force programs. Unfavorable testing results and program delays contributed to the decision. To satisfy F-16C electronic combat self-protection requirements for the post-1995 threat environment, the Air Force will install an Advanced Radar Warning Receiver (ALR-56M) and an advanced chaff/flare dispenser (ALE-47), and employ electronic countermeasures (ECM) pods for jamming against radar-directed threat systems.

#### **ISSUE: TACIT RAINBOW**

The TACIT RAINBOW program is a research and development effort to develop a low-cost, autonomous, loitering missile system to search out and attack enemy surface-based radars

and jammers. A follow-on, ground-launched version will be developed to satisfy Army requirements. TACIT RAINBOW will complement existing destructive and disruptive suppression of enemy air defenses (SEAD) assets. Originally a joint Air Force/Navy/Army program, the Navy withdrew from TACIT RAINBOW in FY 90. TACIT RAINBOW is currently undergoing combined development, test, and evaluation/initial operational test and evaluation (DT&E/IOT&E) with the first production delivery scheduled for FY 93. TACIT RAINBOW, particularly when air-launched by the in-flight programmable B-52 platform, serves as an effective force multiplier. This mode yields considerable direct defense suppression savings (more tactical aircraft saved) and realizes significant opportunity costs (multi-role fighters freed for defensive counterair and battlefield air interdiction missions). These force multiplier effects will be even more important after the Conventional Armed Forces in Europe (CFE) Treaty is enacted; there will be no restrictions on surface-to-air missile (SAM) deployments and the operational battlefield will extend much deeper.

TACIT RAINBOW is only an issue in light of the overall defense suppression mission. Congress wants to see evidence of a coherent defense gameplan even as fiscal constraints have forced severe cutbacks in SEAD (cancellation of the Follow-on Wild Weasel replacement for the F-4G) and self-protection jammer systems (ASPJ cancellation). In addition, the Navy is considering reentering the program.

## **ISSUE: JSTARS**

The Joint Surveillance Target Attack Radar System (JSTARS) is a joint Air Force/Army airborne radar system that locates and tracks moving/fixed ground targets. The radar data can be used before hostilities to provide advance warning of enemy activities and monitor rear area developments, and during hostilities to provide similar intelligence information along with near real-time targeting information to Air Force and Army attack assets.

While JSTARS received strong Congressional support in the past, the current reductions in tensions have led some members of Congress to question the continuing necessity of JSTARS. While it continues to have applicability in a high density ground war, JSTARS also has important applications elsewhere. General Galvin, USCINCEUR, cited JSTARS potential to be even greater in a post-CFE environment than in a shooting war. In addition, General McPeak has stated, "JSTARS will certainly improve markedly our joint capabilities to do interdiction. It will be particularly useful with fewer in-place and augmenting forces. And, since it is a joint system providing battlefield surveillance to both ground and air commanders, it will greatly improve our ability to operate as a combined arms team because all commanders will see and understand the battlefield situation in the same way."

## **AIRLIFT, SPECIAL OPERATIONS, AND DRUG INTERDICTION**

### **ISSUE: Airlift Modernization**

Today's changing environment increases the requirement for strategic and theater flexibility, rapid deployability, and enhanced force projection assets that can respond independent of forward bases. For example, many of our potential areas of conflict are in the Third World where there is little infrastructure to support airlift operations. Yet today's strategic airlift fleet is not short-field capable and is restricted to main operating bases. Additionally, the workhorse for strategic airlift, the C-141, is rapidly approaching the end of its useful service life. It is for these reasons that an entirely new airlifter designed specifically to meet the requirements of theater commanders is needed.

The Secretary of Defense's Major Aircraft Review (MAR) revalidated the need for the C-17 and its ability to perform the dual missions of long-haul strategic airlift and short-haul theater airlift. Combining the ability to carry a large amount of cargo over long distances and operate out of small austere airfields once in the theater of operation, this dual-mission capable aircraft will provide a substantial improvement to the capability of our airlift fleet.

Although total procurement of the C-17 was reduced from 210 to 120 aircraft, the MAR analysis demonstrated that the C-17 was the least-cost option of the cases studied. The alternative of further extending the C-141's service life was eliminated due to technical risks and the aircraft's inability to provide the characteristics required to operate effectively into the next century's airlift environment. As forward-based units are withdrawn and the likelihood of unforeseen contingencies requiring timely application of forces increases, the need for airlift's speed and flexibility will grow. A modernized and more capable airlift force is the linchpin to effective utilization of our future combat forces.

#### **ISSUE: C-17 Procurement**

The principal role of the C-17 is to enhance our nation's ability to rapidly project, reinforce, and sustain combat forces. The C-17 will be capable of landing on C-130 type runways carrying C-5 type cargo. Worldwide there are approximately three times as many airfields available to the C-17 as compared to the C-141 or C-5. If an airfield is not available, the C-17 will be able to airdrop even the Army's largest classes of cargo directly onto the battlefield. The C-17 will require less maintenance, have greater ground maneuverability, and use less airfield operating space than any other current strategic airlift aircraft. These designed-in operational characteristics combine to maximize the key measure of effectiveness to combatant commanders -- throughput. In a ramp space constrained environ-

ment, the C-17 can deliver more than twice the combat power of current aircraft.

Much of the attention focused on the C-17 program has been directed at its overall affordability in a period of drastically reduced defense spending. It was this fact, coupled with a newly emerging strategic environment with an as yet undefined airlift requirement, that led the Secretary of Defense to tentatively reduce the current number of aircraft to be procured from 210 to 120. The Air Force's current plan retires older C-141s as the C-17 comes on the line, and operates the remainder of the C-141 fleet at a lower daily utilization rate to extend its useful service life. This mix maintains operational flexibility by keeping approximately the same number of strategic airlift aircraft while increasing the capability of our airlift system. With the inevitable retirement of the aging C-141, a decision to delay the C-17 further would mean a marked reduction in this nation's airlift capability during a period when the speed and flexibility of airlift will become more important than ever.

Some concerns exist over the ability of Douglas Aircraft Company (DAC) to carry out the C-17 program. These concerns became public when the first flight was rescheduled from August 1990 to June 1991. Solutions to problems in weight growth, mission computer design, and the electronic flight control system are well underway. Discrepancies in contracting procedures and quality control have been identified and are being corrected. Specific aircraft

performance criteria and system reliability are guaranteed by one of the most comprehensive and unique warranty programs in the aircraft industry. Extensive use of proven technologies and "off-the-shelf" components minimizes much of the risk associated with new aircraft development. The Air Force remains convinced of DAC's ability to meet its contractual obligations and will work with the contractor to insure program success.

#### **ISSUE: Air Force Support to Special Operations Forces (SOF)**

The Air Force is fully committed to supporting the special operations mission. On May 22, 1990, the 23rd Air Force became the Air Force Special Operations Command (AFSOC), a new major command and the Air Force component of the United States Special Operations Command. This marks the latest in a series of steps institutionalizing the special operations mission in the Air Force and serves to focus directly on joint and service responsibilities.

Many of the earlier difficulties experienced in carrying out legislated special operations responsibilities have been overcome. The Air Force enthusiastically supports SOF by providing quality people, facilities, resources, training support, equipment, spares, and depot maintenance. By FY 97 we will have fielded 24 new MC-130H Combat Talon IIs, 12 new AC-130U Spectre gunships, and 41 modernized MH-53J PAVE LOW III helicopters. All existing MC-130E Combat Talon Is, AC-130H Spectres, HC-130 tankers, and MH-60G PAVE

HAWK helicopters in the active SOF will receive extensive upgrades. All AC-130As, EC-130Es, and HH-3Es in AFSOC's reserve component will also be upgraded or replaced.

#### **ISSUE: WC-130 Mission**

Continuation of the airborne hurricane reconnaissance mission is considered vital to the global weather tracking requirements of the National Weather Service. Manning and basing requirements for the WC-130 have been a topic of debate in recent months, with Congressional interest centering upon maintaining the capability of the current operation performed by both active and reserve crews. This issue was recently resolved, and the entire mission will be transferred to the reserves beginning in FY 91. The WC-130s will continue to be based at Keesler AFB.

#### **ISSUE: Drug Interdiction**

The Air Force, Air Force Reserve, and Air National Guard provide a Total Force commitment in their support to US government agencies involved in drug interdiction. The Air Force is uniquely suited to provide assistance in command and control, surveillance, and air transportation. This assistance provides airborne radar surveillance (Airborne Warning and Control System [AWACS]) aircraft, intercepting fighters that identify suspected drug traffickers, airborne reconnaissance assets, and both fixed-wing and helicopter transport. Other support includes operating continental radars of the Joint Surveillance System,

improving deep-look capabilities through the Caribbean Basin Radar Network, procuring the long-range Over-the-Horizon Backscatter (OTH-B) system, procuring aerostats for law enforcement agencies, and deploying ground-mobile gap-filler radars to remote locations. Complementary activities provide integration of sector operations control centers with civilian command, control, communications, and intelligence facilities, equipment loans, and shared use of base facilities with law enforcement agencies.

The Bush Administration has identified the war on drugs as a high priority national issue. The President's national drug strategy, announced in September 1989, advocates expanding the military's role and increases funding for anti-drug programs across the board. Meanwhile, the Air Force continues to support government police forces, while maintaining the combat readiness of our military forces.

## **SPACE ASSETS**

### **ISSUE: Air Force Space Responsibilities**

The Air Force has made substantial and highly significant investments in space launch, systems, and space operations over the past thirty years. This investment has established dependable communications, warning, navigation, weather support, and surveillance to a wide range of national, international, and DOD users. However, each service has unique operational needs which only they can define. Admiral Crowe

recommended that the Air Force should have the primary responsibilities for space functions, while the Army should have responsibility for those space functions which contribute directly to land operations, and the Navy should have responsibility for those space functions which directly contribute to maritime operations. Admiral Crowe's recommendations are currently under review. This review, by the co-chairmen of the Defense Space Council, was directed by the Secretary of Defense.

### **ISSUE: Space Launch Vehicle Development**

The use of space for national security purposes is recognized as vital to the nation. A key to the effective use of space by the DOD is assured access. Toward this goal, the Air Force must maintain a reliable, cost-effective fleet of space launch vehicles to support a broad range of payload sizes and capabilities in order to perform assigned space missions.

The Air Force's current space launch capability evolved primarily from ballistic missile programs started in the mid-1950s. Product improvements were introduced into these unmanned expendable launch vehicles until the mid-1970s when the decision was made to launch all DOD payloads on the Space Shuttle.

The Challenger accident in 1986, as well as successive Titan 34D failures in 1985 and 1986, precipitated a major national space launch recovery program aimed at restoring a balanced fleet of manned and unmanned space

launch systems. During this recovery effort, it became apparent that continued reliance on the aging technology in our current fleet of launchers would limit our ability to meet future launch requirements.

To address this problem, the Air Force and NASA began a jointly managed Advanced Launch System (ALS) program in July 1987 to develop a new family of launch vehicles. Due to fiscal constraints, the Air Force restructured the ALS program into an Advanced Launch Development (ALD) program. The objective of the ALD program is to investigate a range of technologies and system concepts that will improve our existing launch capabilities and protect our ability to develop a next-generation launch vehicle. A major goal of this revised program is the development of a new 580,000 pound thrust, highly efficient, low-cost, LOX/hydrogen rocket engine. The Air Force views this as the key component leading toward the development of a next-generation launch vehicle.

#### **ISSUE: Milstar**

Satellite communications systems are an essential part of our command, control, and communications (C<sup>3</sup>) capability. The Milstar program is a joint service effort to provide improved, survivable, and jam-resistant communications in the extremely-high-frequency (EHF) range to both tactical and strategic users. The system consists of a constellation of satellites, mission control equipment, and ground and air terminals. The Air Force has overall system development responsibility.

The major issues for Milstar are cost and applicability in a tactical environment. Some members of Congress have proposed that scaling back the on-orbit system would make the program more affordable. This is currently being evaluated in an effort to determine what level of effectiveness can be achieved with lower cost and increased orientation towards the tactical arena. The Air Force considers Milstar its highest priority C<sup>3</sup> program and the funding levels requested in the budget reflect this priority.

#### **ISSUE: Transfer of Boost Surveillance and Tracking System (BSTS)**

BSTS was a Strategic Defense Initiative (SDI) program to develop a system of satellites for tracking launches of hostile missiles and providing precise targeting information. In recent testimony before Congress, SDI officials stated that BSTS is no longer essential to ballistic missile defense under SDI's current Brilliant Pebbles architecture. The Air Force has had a long-standing requirement pre-dating SDI for the tactical warning/attack assessment (TW/AA) capabilities available with BSTS, and considers BSTS the replacement for the Defense Support Program (DSP), the nation's current early warning satellite system. The Air Force believes that further BSTS development for TW/AA purposes would best be facilitated by transferring the program to the Air Force.

Congressional concerns over BSTS transfer have centered on questions of timing, funding, and

technical requirements. An even more basic question being asked is one of capability versus affordability. A recent Air Force study concluded that BSTS capabilities could be reduced, if the system was focused solely on essential TW/AA needs. The Air Force version of BSTS will be designated the Advanced Warning System (AWS).

#### **ISSUE: Space-Based Wide Area Surveillance (SBWAS)**

The Air Force proposed a space-based radar system to meet a JCS-required operational capability for wide area surveillance, tracking, and targeting. Much of this radar technology is readily available and the engineering risk is considered low to moderate. The Navy proposed meeting the same JCS requirement with an alternative, higher-risk, longer-term technology. There were claims that both SBWAS systems were too costly and OSD recently decided to integrate both technologies. All of the warfighting CINCs have reaffirmed their near-term operational need for this system -- given the changing world military and political environment, surveillance needs are more critical now than ever before. Based on a recent Defense Acquisition Board decision, the Air Force is engaged in

concept exploration studies and is preparing for Milestone I in FY 95.

#### **ISSUE: Anti-Satellite (ASAT) Capability**

Critical defense missions performed using satellites include communications, surveillance, TW/AA, navigation, and meteorological observation. Increasing reliance upon these satellite-based capabilities requires enhanced survivability measures to meet potential threats posed by adversaries. The Soviet Union possess an operational, co-orbital ASAT capability, as well as technologies which could support ASAT-related applications inherent in ground-based lasers and electronic warfare.

The nation needs an operational ASAT capability to counter satellites which threaten our ground, sea, and aerospace forces. Although the Air Force cancelled its F-15 air-launched ASAT program in FY 88 due to Congressional funding reductions, a new joint-service program is currently under development. The Army is the lead service for this ground-based, kinetic energy system, with Air Force activities focused on system integration and battle management/command, control, communications responsibilities.